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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/600,223  
Filing Date: June 20, 2003  
Appellant(s): HERLE, SUDHINDRA P.

John T. Mockler  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 03/13/2009 appealing from the Office action mailed 10/27/2008.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

Based on the information supplied by the Appellants, and to the best of Appellants' legal representative's knowledge, the real party in the interest is the assignee, Samsung Electronics Co., Limited.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct and copied below for convenience.

Claims pending: 1-24.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

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**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

2004/0068721	O'NEILL ET AL.	04-2004
2007/0142083	CUPPS ET AL.	06-2007

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-24 rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication No. 2004/0068721 to O'Neill et al. (hereinafter, O'Neill) in view of US Publication No. 2007/0142083 to Cupps et al. (hereinafter, Cupps).

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**Per claim 1:**

O'Neill discloses:

- A wireless communication device capable of accessing a wireless network and downloading a software upgrade file therefrom (paragraph [0011] “provide software updates to one or more wireless communication devices”), said wireless communication device comprising:
- a first central processing unit (CPU) (paragraph [0032] “FIG. 2 is a system diagram of a wireless communication device”) capable of controlling wireless communications with said wireless network (paragraph [0014] “...distribution environment provides a suitable distribution node... communication device”);
- a first memory associated with (paragraph [0032] “FIG. 2 is a system diagram of a wireless communication device...non-volatile memory... and a volatile memory” Also See Fig. 2 and related discussion) said first CPU (paragraph [0032] “FIG. 2 is a system diagram of a wireless communication device”);
- wherein said first CPU (paragraph [0032] “FIG. 2 is a system diagram of a wireless communication device”) downloads said software upgrade file from said wireless network (paragraph [0032] “download agent... download... software... from a distribution environment”) and stores said downloaded software upgrade file in said memory (paragraph [0032] “upload agent... uploads software form the non-volatile or volatile memories... of wireless communication devices”).

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O'Neill does not explicitly disclose a second central processing unit (CPU) capable of executing at least one end-user application on said wireless communication device; and a second memory associated with said second CPU.

However, Cupps discloses in an analogous computer system a second central processing unit (CPU) (paragraph [0013] "The second processor processes the programs and data") capable of executing at least one end-user application (paragraph [0013] "Programs and data for operating the second processor flow initially into the second processor") on said wireless communication device (paragraph [0013] "a first... processor and a second... processor are combined in a handheld housing (i.e., wireless communication device"); and a second memory associated with said second CPU (paragraph [0119] "memory 308 is not dual ported, but rather is divided into two portions of high speed synchronous RAM, with system processor 302 and processor 320 being allocated their own separate portions of RAM 308").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of a second central processing unit (CPU) capable of executing at least one end-user application on said wireless communication device; and a second memory associated with said second CPU as taught by Cupps into the method of Network for updating firmware and/or software in wireless communication devices as taught by O'Neill . The modification would be obvious because of one of ordinary skill in the art would be motivated to have a second central processing unit (CPU) capable of executing at least one end-user application on said wireless communication device; and a second memory associated with said second CPU to maintain the power and memory of a such a small devices such as cellular phone as suggested by Cupps (paragraph [0003]).

**Per claim 2:**

The rejection of claim 1 is incorporated and further, O'Neill discloses:

- wherein said first CPU is capable of executing a first upgrade agent program that replaces first existing code associated with a first existing software file in said first memory with first replacement code from said downloaded software upgrade file (paragraph [0032] “download agent...download...software from distribution... upload agent... uploads software... in the wireless communication device...in the non-volatile memory...software update...”).

**Per claim 3:**

The rejection of claim 2 is incorporated and further, O'Neill discloses:

- wherein said first upgrade agent program is stored in said first memory ((paragraph [0032] “download agent...download...software from distribution... upload agent... uploads software... in the wireless communication device...in the non-volatile memory...software update...” Also See Fig. 2, element 221 and related discussion).

**Per claim 4:**

The rejection of claim 3 is incorporated and further, O'Neill discloses:

- wherein said downloaded software upgrade file is transferred from said second memory to said first memory by an interprocessor communication unit (paragraph [0032] “download agent...download...software from distribution... upload agent... uploads

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software... in the wireless communication device...in the non-volatile memory...software update...” Also See Fig. 2, element 223).

**Per claim 5:**

The rejection of claim 4 is incorporated and further, O’Neill discloses:

- wherein said first CPU executes said first upgrade agent program after said downloaded software upgrade file is transferred into said first memory from said second memory (paragraph [0032] “download agent...download...software from distribution... upload agent... uploads software... in the wireless communication device...in the non-volatile memory...software update...”).

**Per claim 6:**

The rejection of claim 3 is incorporated and further, O’Neill discloses:

- wherein said first upgrade agent program is transferred from said second memory and stored in said first memory (paragraph [0032] “download agent...download...software from distribution... upload agent... uploads software... in the wireless communication device...in the non-volatile memory...software update...” Also See Fig. 2, element 223).

**Per claim 7:**

The rejection of claim 6 is incorporated and further, O’Neill discloses:

- wherein said downloaded software upgrade file and said first upgrade agent program are transferred from said second memory to said first memory by an interprocessor

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communication unit (paragraph [0032] “download agent...download...software from distribution... upload agent... uploads software... in the wireless communication device...in the non-volatile memory...software update...” Also See Fig. 2, element 223).

**Per claim 8:**

The rejection of claim 7 is incorporated and further, O'Neill discloses:

- wherein said first CPU executes said first upgrade agent program after said downloaded software upgrade file is transferred into said first memory from said second memory (paragraph [0037] “software updates may be downloaded and easily executed using one or more update, download, and upload agents of the primary update environment in conjunction with one or more software applications, components, and/or firmware resident in memory of the wireless communication device”).

**Per claim 9:**

The rejection of claim 2 is incorporated and further, O'Neill discloses:

- wherein said second CPU is capable of executing a second upgrade agent program that replaces second existing code associated with a second existing software file in said second memory with second replacement code from said downloaded software upgrade file (paragraph [0037] “software updates may be downloaded and easily executed using one or more update, download, and upload agents of the primary update environment in conjunction with one or more software applications, components, and/or firmware resident in memory of the wireless communication device”).



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**Per claim 10:**

The rejection of claim 9 is incorporated and further, O'Neill discloses:

- wherein said second upgrade agent program is stored in said second memory (paragraph [0032] “download agent...download...software from distribution... upload agent... uploads software... in the wireless communication device...in the non-volatile memory...software update...” Also See Fig. 2, element 221 and related discussion).

**Per claim 11:**

The rejection of claim 10 is incorporated and further, O'Neill discloses:

- wherein said second upgrade agent program is transferred from said first memory and stored in said second memory (paragraph [0032] “download agent...download...software from distribution... upload agent... uploads software... in the wireless communication device...in the non-volatile memory...software update...”).

**Per claim 12:**

The rejection of claim 11 is incorporated and further, O'Neill discloses:

- wherein said second CPU executes said second upgrade agent program after said second upgrade agent program is transferred into said second memory from said first memory (paragraph [0037] “software updates may be downloaded and easily executed using one or more update, download, and upload agents of the primary update environment in

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conjunction with one or more software applications, components, and/or firmware resident in memory of the wireless communication device”).

**Claims 13-24** are the method claim corresponding to apparatus/device claims 1-12 respectively, and rejected under the same rationale set forth in connection with the rejection of claims 1-12 respectively, as noted above.

#### **(10) Response to Argument**

##### **Appellant argued that:**

##### **Claims 1, 3, 13, and 15:**

(A) Neither Cupps nor O'Neill, nor any combination of them, teaches or suggests that the first CPU downloads a software upgrade file from a wireless network and stores the downloaded software upgrade file in second memory, associated with the second CPU. Nothing in Cupps or O'Neill teaches that this would be desirable or operable, or that there would be any predictable result or likelihood of success.

(B) Cupps describes in paragraph 0175 that "system processor 302 is self-contained, and the software applications that run within the embedded operating environment are considered 'closed.' Specifically, in a 'closed' environment, the software used is specified by the developer of the embedded system and may not be upgraded or modified by the user of the embedded operating system. In addition, no new software may be introduced to the embedded system by the user". Thus, Cupps specifically *teaches away* from any ability to download software by the non-embedded processor for storage by the embedded processor, since *no new software may be introduced to the embedded system*. There is no teaching at all that the first (embedded) processor downloads files and stores them in the memory allocated for the second (non-embedded) processor.

(C) O'Neill reference (10/631,567) [which is referred to as '721 by the applicants] do not appear to be prior art for this application because the continuation application (10/311,462) [which is referred to as '414 by the applicants] of '721 do not support the subject matter of present invention e.g., '414 does not discuss a "wireless communication device" at all. Thus the rejection is improper.

##### **Examiner's response:**

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With respect to argument (A) Examiner respectfully disagrees. The combination of Cupps and O'Neill discloses the limitations as claimed. O'Neill teaches upgrading the firmware/software in wireless communication devices such as cellular or mobile phones (paragraph [0013-0015]). O'Neill teaches first CPU (paragraph [0032] "FIG. 2 is a system diagram of a wireless communication device" e.g., wireless communication device includes CPU.) downloads a software upgrade file from a wireless network (paragraph [0032] "download agent... download... software... from a distribution environment") and stores downloaded software upgrade file in memory (paragraph [0032] "upload agent... uploads software from the non-volatile or volatile memories... of wireless communication devices"). As acknowledged by the office that O'Neill does not explicitly disclose a second memory and a second CPU. However, Cupps in combination with O'Neill teaches dual processor wireless device e.g., a second central processing unit (CPU) (paragraph [0013] "The second processor processes the programs and data"); and a second memory associated with second CPU (paragraph [0119] "...system processor 302 and processor 320 being allocated their own separate portions of RAM 308"). The rejection also clearly points out that one skill in the art would be motivated to combine Cupps with O'Neill teachings to maintain or better utilize the power and memory of a small devices such as cellular phone to allow performing the complex functions for user's need see paragraphs [0003] and [0013]. Consequently, the amalgamation of Cupps and O'Neill references is proper.

With respect to argument (B) Examiner respectfully disagrees. Cupps teaches 'closed' as well an 'open' environment. Cupps teaches that device 300 has also provided to the user an "open" operating environment, with an industry standard operating system, allowing for the use

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of industry standard software. The user of device 300 is free to load and manipulate software and data files that reside in the "open" operating environment of the PC module without fear of corrupting the core functionality of the entire device, see (paragraph [0178]). Thus Cupps specifically teaches the ability to download software by the non-embedded processor for storage by the embedded processor, since *new software may be introduced to the embedded system*.

With respect to argument (C) Examiner respectfully disagrees. Application '414 teaches updating and distributing information to client devices, see paragraph [0040]. More particularly, '414 specifically discloses updating wireless communication device or mobile phones or cellular phones and describes mobile phones or cellular phones several places within the application, for example, see paragraphs [0004], [0007], [0040], [0055], [0077], [0107], [0108]. Further, particularly, the software upgrading process is described in paragraphs [0117-0124]. Therefore, the continuation application '414 contains the subject matter of the claimed invention and the rejection is proper (please find the citation of '414 in the attached PTO-892).

Further, as indicated by the appellants that O'Neill '721 also references provisional applications 60/401,054 and 60/412,850 and both available on PAIR and includes the relevant teaching. Also note that the filing dates of provisional applications 60/401,054 (filed on Sep. 23, 2002) and 60/412,850 (filed on Aug. 5, 2002) are before the instance applications filing date June 20, 2003 and supports the teaching of '721. Thus, '721 clearly qualify as prior art and hence is properly used.

**Claims 2 and 14:**

Nothing in any combination of the references teaches or suggests that code stored in the first memory (associated with the first processor) should be replaced with from the downloaded upgrade file, which is stored in the second memory associated with the second processor. In fact, in Cupps description, this is not even possible, since "no new software may be introduced" to the embedded processor and storage - which prevents the embedded processor and memory from either storing or installing the upgrade file in its memory, so it cannot function as one of the claimed first or second processor.

**Examiner's response:**

Examiner respectfully disagrees. First of all the claim limitations does not include the limitations as argued by the appellant. Claim only recite "wherein said first CPU is capable of executing a first upgrade agent program that replaces first existing code associated with a first existing software file in said first memory with first replacement code from said downloaded software upgrade file", and does not recite "which is stored in the second memory associated with the second processor". O'Neill explicitly discloses updating the non-volatile memory via upgrade agent of the wireless communication device, see (paragraph [0032]). On the other hand Cupps discloses having dual i.e., one or more processors with associated memories as described above with respect to claim 1. Further, Cupps discloses an open environment for upgrading, modifying, deleting software in wireless communication device as described above with respect to claim 1. Consequently, the amalgamation of Cupps and O'Neill references is proper.

**Claims 4, 16, and 19:**

Nothing in any combination of the references teaches or suggests that code stored in the second memory (associated with the second processor) can or should be transferred to the first memory associated with the first processor. In fact, in Cupps description, this is not even possible, since "no new software may be introduced" to the embedded processor and storage- which prevents the embedded processor from receiving any transferred file for its memory, so it cannot function as one of the claimed first or second processor. There is no interprocessor unit as claimed.

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**Examiner's response:**

In response to appellant arguments, the arguments are similar to those presented with respect to claims 2 and 14 and thus the same rationale set forth in connection with the claims 4, 16, and 19. Further, O'Neill teaches updating software of a wireless communication unit, i.e., upgrading software to one skill in the art is upgrading the software that is stored on the memory, thus O'Neill must have an interprocessor unit or a bus to communicate from upload agent 223 to memories 217 and 225 in order for the software to be upgraded that is stored in the memories, see (paragraph [0032]).

**Claims 5, 8, 17, and 20:**

Nothing in any combination of the references teaches or suggests the claimed file transfer, as discussed above, and certainly doesn't teach that an upgrade agent program is executed after the transfer occurs.

**Examiner's response:**

Examiner respectfully disagrees. O'Neill teaches receiving software upgrades via file transfer protocol (FTP), and FTP is used to transfer files from one unit to another in the network environment, see (paragraph [0035]). Further, O'Neill teaches download agent 219 facilitates the download and incorporation of software from a distribution environment while the upload agent 223 uploads software or a subset of software resident in the wireless communication device 209, see (paragraph [0032]).

**Claims 6 and 18:**

Nothing in any combination of the references teaches or suggests that code stored in the second memory (associated with the second processor) can or should be transferred to the first memory associated with the first processor. In fact, in Cupps description, this is not even possible, since "no new software may be introduced" to the embedded processor and storage-

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which prevents the embedded processor from receiving any transferred file for its memory, so it cannot function as one of the claimed first or second processor.

**Examiner's response:**

Examiner respectfully disagrees. First of all the claim limitations does not include the limitations as argued by the appellant. Claim only recite "wherein said first CPU is capable of executing a first upgrade agent program that replaces first existing code associated with a first existing software file in said first memory with first replacement code from said downloaded software upgrade file", and does not recite "which is stored in the second memory associated with the second processor". O'Neill explicitly discloses updating the non-volatile memory via upgrade agent of the wireless communication device, see (paragraph [0032]). On the other hand Cupps discloses having dual i.e., one or more processors with associated memories as described above with respect to claim 1. Further, Cupps discloses an open environment for upgrading, modifying, deleting software in wireless communication device as described above with respect to claim 1. Consequently, the amalgamation of Cupps and O'Neill references is proper.

**Claim 7:**

Nothing in any combination of the references teaches or suggests that code stored in the second memory (associated with the second processor) can or should be transferred to the first memory associated with the first processor. In fact, in Cupps description, this is not even possible, since "no new software may be introduced" to the embedded processor and storage- which prevents the embedded processor from receiving any transferred file for its memory, so it cannot function as one of the claimed first or second processor. There is no interprocessor unit as claimed.

**Examiner's response:**

In response to appellant arguments, the arguments are similar to those presented with respect to claims 2 and 14 and thus the same rationale set forth in connection with the claims 8

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and 14. Further, O'Neill teaches updating software of a wireless communication unit, i.e., upgrading software to one skill in the art is upgrading the software that is stored on the memory, thus O'Neill must have an interprocessor unit or a bus to communicate from upload agent 223 to memories 217 and 225 in order for the software to be upgraded that is stored in the memories. Consequently, the amalgamation of Cupps and O'Neill references is proper and discloses the above argued limitations.

**Claims 9 and 21:**

Nothing in any combination of the references teaches or suggests a second upgrade agent program, replacing second code in the second memory (so that code in both memories are upgraded).

**Examiner's response:**

Examiner respectfully disagrees. O'Neill teaches that wireless communication device stores *one or more* update agents, download agents, and upload agents to update one or more software, see (paragraph [0037]). Cupps discloses more than one memory as described above with respect to claim 1. Consequently, the amalgamation of Cupps and O'Neill references is proper and discloses the above argued limitations.

**Claims 10-12 and 22-24:**

Nothing in any combination of the references teaches or suggests a second upgrade agent program, or how it might be transferred or executed.

**Examiner's response:**

Examiner respectfully disagrees. O'Neill teaches that wireless communication device stores *one or more* update agents, download agents, and upload agents to update one or more software, see (paragraph [0037]).



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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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/Satish Rampuria/  
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